

**Response Under 37 CFR 1.116**

**Expedited Procedure**

Application No. 10/540,451

Amendment AF dated July 6, 2010

In Reply to final Action of April 8, 2010

Attorney Docket No. 3163-051952

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims**

1. (Currently Amended) A method for electroless plating, wherein:  
the method for electroless plating is that for applying to a polymer electrolyte;

the method for electroless plating contains a pre-treatment step that occurs prior to applying electroless plating to the polymer electrolyte;

the pre-treatment step is a swelling step for swelling the polymer electrolyte by means of permeation of a good solvent or a mixed solvent containing a good solvent; and

the swelling step is a step for making a thickness of the polymer electrolyte in a swollen state to be 440% 130% or more that of the polymer electrolyte in a dry state.

2. (Currently Amended) The method for electroless plating for applying to a polymer electrolyte as claimed in claim 1, characterized in that the swelling step is a step for making a thickness of the polymer electrolyte in a swollen state to be 440 130 to 3000% with respect to that of the polymer electrolyte in a dry state.

3. (Currently Amended) A method for manufacturing a laminate comprising a metal layer and a polymer electrolyte, wherein:

the manufacturing method is that for applying electroless plating to a polymer electrolyte;

**Response Under 37 CFR 1.116**

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Attorney Docket No. 3163-051952

the method for electroless plating contains a pre-treatment step that occurs prior to applying electroless plating to the polymer electrolyte;

the pre-treatment step is a swelling step for swelling the polymer electrolyte by means of permeation of a good solvent or a mixed solvent containing a good solvent;

the swelling step is a step for making a thickness of the polymer electrolyte in a swollen state to be ~~440%~~ 130% or more that of the polymer electrolyte in a dry state;

after the swelling step, an electroless plating step comprising an adsorption step and a reduction step are is carried out;

the adsorption step is a step for adsorbing a metal complex to the polymer electrolyte; and

the reduction step is a step for allowing a reductant solution to be in contact with the polymer electrolyte to which the metal complex has been adsorbed.

4. (Original) The method for manufacturing a laminate as claimed in claim 3, characterized in that the swelling step allows a good solvent or a mixed solvent containing a good solvent to permeate into the polymer electrolyte, whereby a degree of crystallization of the polymer electrolyte is reduced, so that intertwist of side chains containing at least functional groups in a polymer constituting the polymer electrolyte is moderated.

5. (Previously Presented) The method for manufacturing a laminate as claimed in claim 3, wherein the good solvent is methanol.

6. (Previously Presented) The method for manufacturing a laminate as claimed in claim 3, wherein the polymer electrolyte is an ion-exchange resin, and the good solvent is a mixed solution consisting of a basic salt and methanol.

**Response Under 37 CFR 1.116**

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Attorney Docket No. 3163-051952

7. (Currently Amended) A method for electroless plating, wherein:

the method for electroless plating is that for applying to a polymer electrolyte;

the method for electroless plating contains a pre-treatment step that occurs prior to applying electroless plating to the polymer electrolyte;

the pre-treatment step is a swelling step for swelling the polymer electrolyte by means of permeation of an aqueous solution of a salt; and

the swelling step is a step for making a thickness of the polymer electrolyte in a swollen state to be 440% 130% or more that of the polymer electrolyte in a dry state.

8. (Currently Amended) A method for manufacturing a laminate

comprising a metal layer and a polymer electrolyte, wherein:

the manufacturing method is that for applying electroless plating to a polymer electrolyte;

the method for electroless plating contains a pre-treatment step that occurs prior to applying electroless plating to the polymer electrolyte;

the pre-treatment step is a swelling step for swelling the polymer electrolyte by means of permeation of an aqueous solution of a salt;

the swelling step is a step for making a thickness of the polymer electrolyte in a swollen state to be 440% 130% or more that of the polymer electrolyte in a dry state;

after the swelling step, an electroless plating step comprising an adsorption step and a reduction step are is carried out;

the adsorption step is a step for adsorbing a metal complex to the polymer electrolyte; and

the reduction step is a step for allowing a reductant solution to be in contact with the polymer electrolyte to which the metal complex has been adsorbed.

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Attorney Docket No. 3163-051952

9-12. (Canceled).

13. (Previously Presented) The method for manufacturing a laminate as claimed in claim 4, wherein the good solvent is methanol.

14. (Previously Presented) The method for manufacturing a laminate as claimed in claim 4, wherein the polymer electrolyte is an ion-exchange resin, and the good solvent is a mixed solution consisting of a basic salt and methanol.

15. (Canceled).

16. (Previously Presented) The method for electroless plating as claimed in claim 1, wherein the polymer electrolyte is an ion-exchange resin.

17. (Previously Presented) The method for manufacturing a laminate as claimed in claim 3, wherein the polymer electrolyte is an ion-exchange resin.

18. (Previously Presented) The method for electroless plating as claimed in claim 7, wherein the polymer electrolyte is an ion-exchange resin.

19. (Previously Presented) The method for manufacturing a laminate as claimed in claim 8, wherein the polymer electrolyte is an ion-exchange resin.

20. (Withdrawn) The method for electroless plating as claimed in claim 1, wherein the good solvent contains at least one solvent selected from the group consisting of: methanol, ethanol, propanol, hexafluoro-2-propanol, dimethyl sulfoxide,

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**Expedited Procedure**

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N-methylpyrrolidone, dimethylformamide, ethylene glycol, diethylene glycol, and glycerin.

21. (Withdrawn) The method for manufacturing a laminate as claimed in claim 3, wherein the good solvent contains at least one solvent selected from the group consisting of: methanol, ethanol, propanol, hexafluoro-2-propanol, dimethyl sulfoxide, N-methylpyrrolidone, dimethylformamide, ethylene glycol, diethylene glycol, and glycerin.

22. (Previously Presented) The method for manufacturing a laminate as claimed in claim 3, wherein the laminate is used as an actuator element.

23. (Previously Presented) The method for manufacturing a laminate as claimed in claim 8, wherein the laminate is used as an actuator element.